User Guide

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W322P 11N Wireless PCI Adapter

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Chapter 1 Introduction

W322P/P+ utilizes the most advanced wireless networking technology, IEEE802.11n (Draft 2.0), and well backwards complies with 802.11b/802.11g standards. It can effectivly reduce "dead spots" and multiplies times of wireless signals in coverage area.

W322P/P+ supports WPS (Wi-Fi Protected Setup) encryption method which can free you from remembering long passwords. Soft Ap feature can help you establish wireless LAN networking as quickly as possible. Besides, it supports PSP, NDS and WII connecting with Internet and Xlink Kai to enjoy on-

line gaming, and WMM function makes your voice and video more smooth.

⚠**Note:**

The only difference between W322P and W322P+ is that W322P+'s antenna can be detachable.

1.1 Product Feature

- Complies with IEEE 802.11n (Draft 2.0), IEEE 802.11g, IEEE 802.11b standards
- Provides 32-bit PCI interface
- Provides 300Mbps receiving rate and 300Mbps sending rate
- Supports 20MHz/40MHz frequency width
- Auto-detects and changes the network transmission rate
- Provides two work modes: Infrastructure and Ad-Hoc
- Supports Soft AP to establish your wireless LAN networking quickly
- Supports 64/128-bit WEP, WPA, WPA2

encryption methods and 802.1x security authentication standard

- Supports WPS (Wi-Fi Protected Setup) encryption method to free you from remembering long passwords
- Supports WMM to make your voice and video more smooth

1.2 Product Deployment

W322P/P+ Wireless PCI Adapter offers fast, reliable and cost- effective solution for wireless access. Deployment as follows;

- For staff who requires higher mobility in the office, they want to have access to traditional wired or wireless network in any place of the company;
- Enterprise or individual who requires often changes in lay out of network cables;
- Companies or places which are not suitable for LAN cable laying out because of budget or

objective building, including places of great interests, rent places or places for short-term usage;

- Company or individual who avoids using expensive cables, renting cables or renting rights for access.

1.3 Indicator Description

In the front panel of W322P/P+, there is a LED indicator blinking when data communication is going on.

1.4 Package Contents

Unpack the packets, and please find the following items:

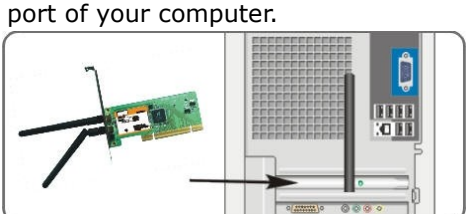
- One W322P/P+ 11N Wireless PCI Adapter
- One CD-ROM

Chapter 2 Installation Guide

This chapter is to assist you how to use the included CD-ROM which comprises the Setup Wizard and the Client Utility Interface.

The following steps on Setup Wizard are taken the Windows XP as example.

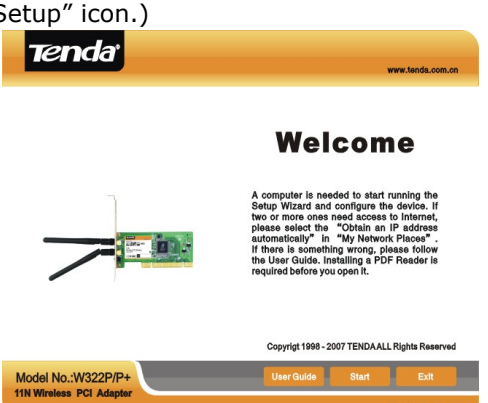
1. Please insert the Wireless PCI Adapter into the PCI port of your computer.



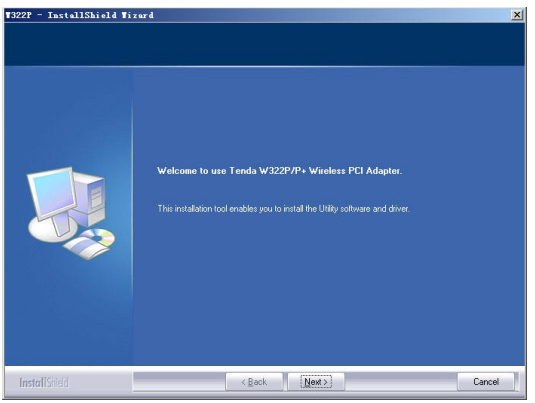
2. "Found New Hardware" system dialogue appears, and selects "Cancel" to use the included Setup Wizard for fast installation; of course, you also can select "Next" to install by manual.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel

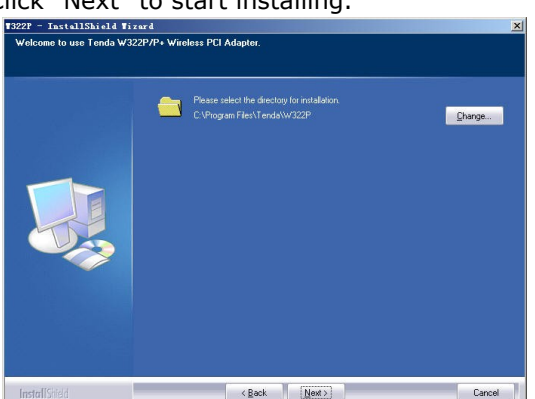
3. Inert the included CD-ROM into the CD-ROM drive of your computer, and the Welcome screen appears. (If not appear, double click the "Setup" icon.)


Tenda
www.tenda.com.cn
Welcome
A computer is needed to start running the Setup Wizard and configure the device. If two or more ones need access to Internet, please select the "Obtain an IP address automatically" in "My Network Places". If there is something wrong, please follow the User Guide. Installing a PDF Reader is required before you open it.
Copyright 1998 - 2007 TENDA ALL Rights Reserved
Model No.:W322P/P+
11N Wireless PCI Adapter
User Guide
Start
Exit
Version No.: Ver1.0

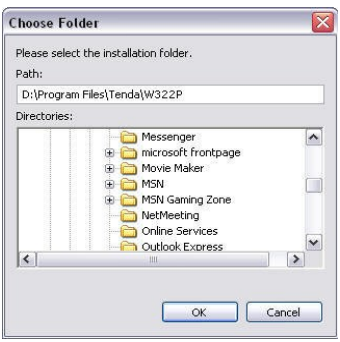
4. Click "Enter".


W322P - InstallShield Wizard
Welcome to use Tenda W322P/P+ Wireless PCI Adapter.
This installation tool enables you to install the Utility software and driver.
InstallShield
< Back
Next >
Cancel

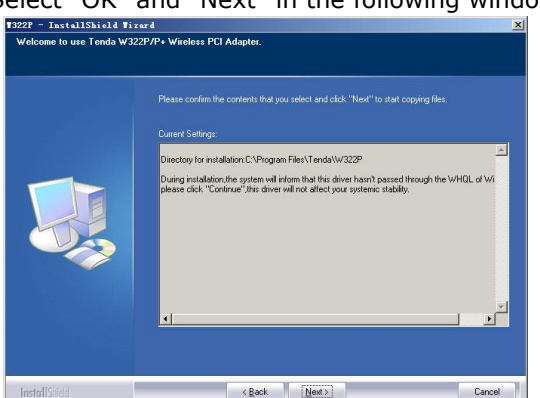
5. Click “Next” to start installing.



6. Click “Change…” to select the directory path, or click “Next”.



7. Select “OK” and “Next” in the following window.

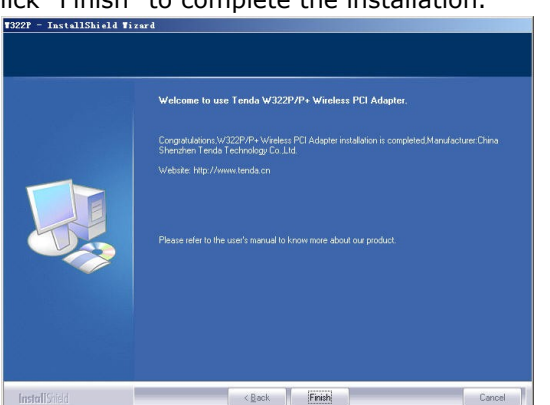

W322P - InstallShield Wizard
Welcome to use Tenda W322P/P+ Wireless PCI Adapter.
Please confirm the contents that you select and click "Next" to start copying files.
Current Settings:
Directory for installation:C:\Program Files\Tenda\W322P
During installation,the system will inform that this driver hasn't passed through the WHQL of Wi
please click "Continue",this driver will not affect your systemic stability.
InstallShield
< Back
Next >
Cancel

8. During the installation, the following dialogue maybe appears. Click the “Continue Anyway” to continue. There is no security threat to your

computer.

Hardware Installation
The software you are installing for this hardware:
Tenda W322P/P+ Wireless PCI Adapter
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

9. Click “Finish” to complete the installation.


W322P - InstallShield Wizard
Welcome to use Tenda W322P/P+ Wireless PCI Adapter.
Congratulations,W322P/P+ Wireless PCI Adapter installation is completed.Manufacturer:China Shenzhen Tenda Technology Co.,Ltd.
Website: http://www.tenda.cn
Please refer to the user's manual to know more about our product.
InstallShield
< Back
Finish
Cancel

Chapter 3 Client Utility Interface

This software is for the W322P/P+ Wireless PCI Adapter management. If it does not appear, select "Start"—"All Programs" —"Tenda"—"W322P", or click the shortcut on your PC's desktop.

⚠ ***Note:***

In the Windows XP, you can select the included W322P/P+ Client Utility Interface or the Windows XP internal wireless application to configure the device.

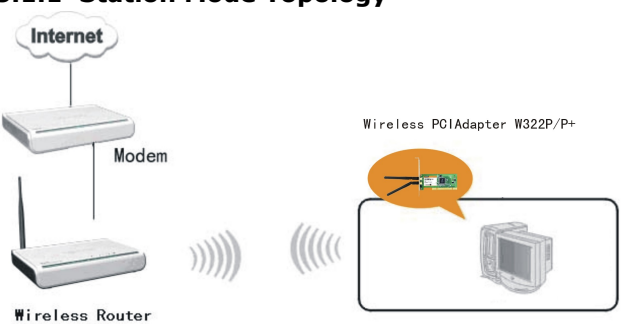
There are two client utility applications in W322P/P+: Station mode and AP mode.

⚠ ***Note:***

In this utility interface, Station Mode (Client Mode) is the default access way.

3.1 Station Mode

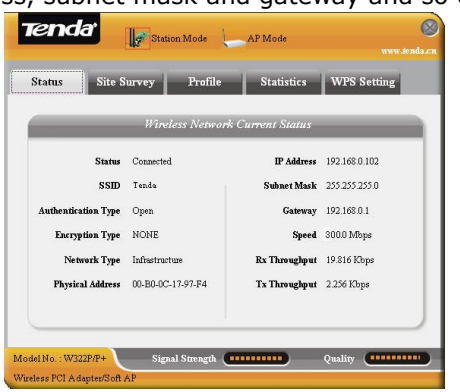
3.1.1 Station Mode Topology



In this mode, W322P/P+ serves as a client to receive the wireless signals to access the Internet.

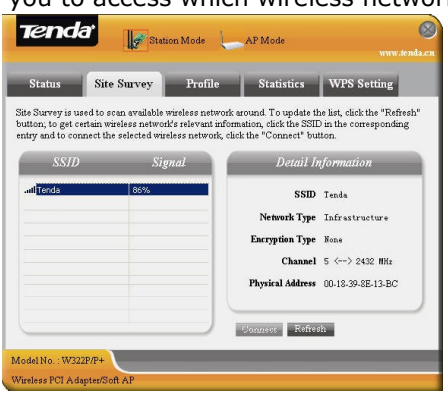
3.1.2 Status

In the Network Status window, it displays something on wireless adapter and wireless network status, including SSID, Authentication type, Encryption Type, IP address, subnet mask and gateway and so on.



3.1.3 Site Survey

The Site Survey is used to scan the available wireless network around, showing the wireless network's signal strength and other information which provides basis for you to access which wireless network.

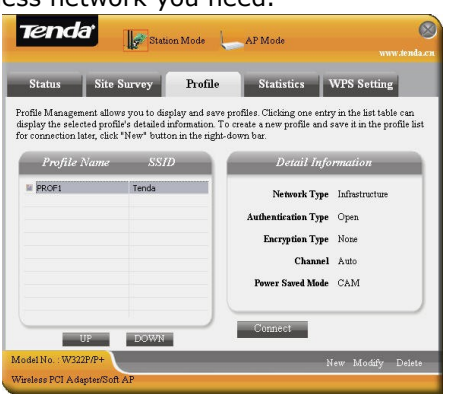


Connect: select one entry in the wireless network list and click the button to connect the device with the selected network.

Refresh: rescan the wireless network around.

3.1.4 Profile Management

This window saves the general wireless parameters for different profiles, which is used to fast connect the wireless network you need.



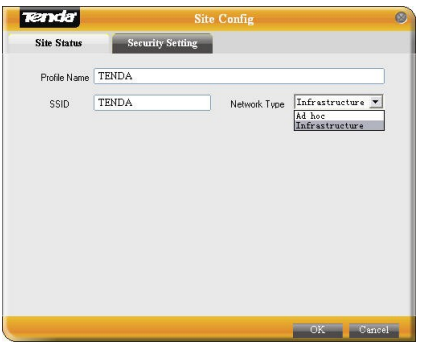
UP/DOWN: To change the profile's sequence in the list.

Connect: To activate one profile.

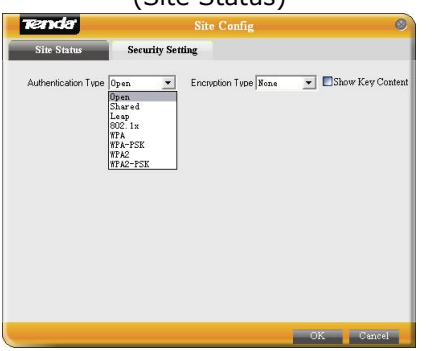
New: To create a new profile and configure the site status and security setting.

Modify: To modify one existing profile.

Delete: To delete one existing profile.



(Site Status)



(Security Setting)

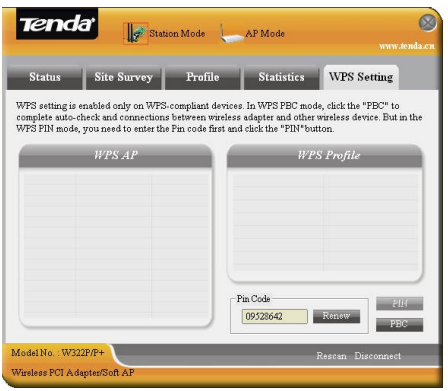
3.1.5 Statistics

Statistics is used to summarize Rx and Tx data packets, including the success and error packet amount.

Clear: click this button to renew the statistics.

3.1.6 WPS Setting

WPS setting is enabled only on WPS-compliant devices.



PIN： Enter the Pin code and click the "PIN" to automatically connect the wireless adapter with wireless devices around.

PBC： Click the "PBC" to complete auto-check and connections between wireless adapter and other wireless device.

Refresh: to update the Pin code.

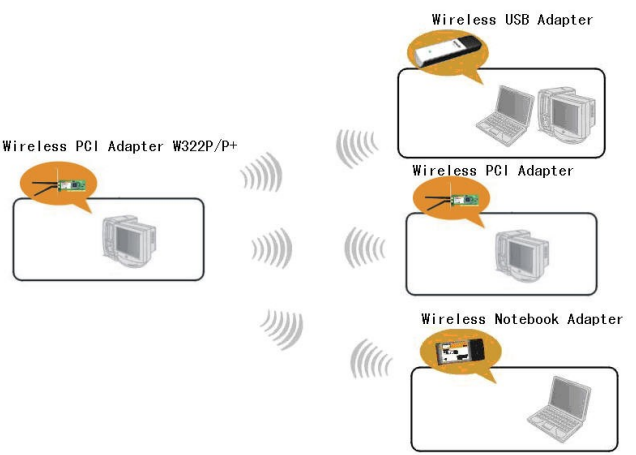
Rescan: to rescan the WPS-compliant wireless network around.

Disconnect: to disconnect the connected wireless network.

3.2 AP Mode

3.2.1 AP Mode Topology

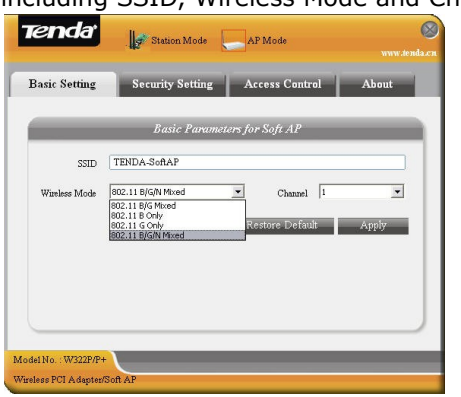
The device also can serve as an access point to transmit wireless signals and create wireless network, allowing other wireless clients to access the network.



Click the AP Mode icon to enter the AP Mode interface.

3.2.2 Basic Setting

This window is used to configure the AP's basic parameters, including SSID, Wireless Mode and Channel.



SSID: Wireless network's ID name scanned by wireless adapter.

Wireless Mode: 802.11b/802.11g/802.11b/g mixed.

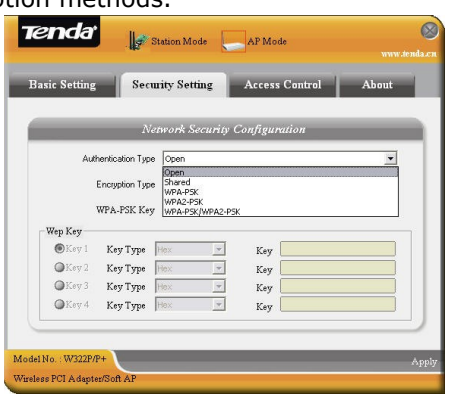
Channel: 1~11 channels provided.

Restore Default: to restore the set parameters to default factory default settings.

Apply: to make the changes made take effect.

3.2.3 Security Setting

This window is used to configure the wireless network's security authentication, providing WEP, WPA-PSK, WPA2-PSK, and WPA-PSK/WPA2-PSK encryption methods.



WEP：10/26 bits Hex or 5/13 ASCII support.

WPA-PSK：8~32 bits ASCII support.

WPA2-PSK：8~32 bits ASCII support.

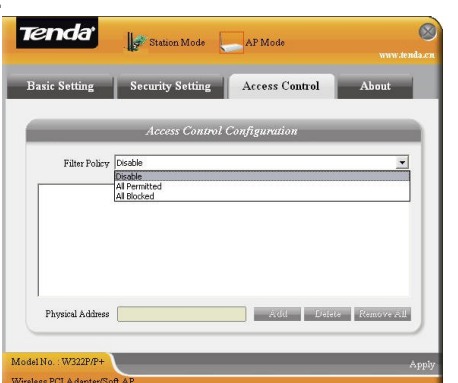
WPA-PSK/WPA2-PSK ： 8~32 bits ASCII support.

⚠ ***Note:***

1. The Hex characters include 0~9 numbers and a~f letters.
2. ASCII characters include any numbers/letters and characters.

3.2.4 Access Control

Access Control is based on the MAC address to decide that the specified client connects to the wireless network, or disables it to access the wireless network.



Filter Policy:

Disabled: to disable the filter function.

All Permitted: to permit all clients in the list to access the wireless network.

All Blocked: to refuse all clients in the list to access the wireless network.

MAC Address：to input the client's MAC address to implement the corresponding filter policy. For example: b0000a8cd702.

Add: to add the entered MAC address into the list.

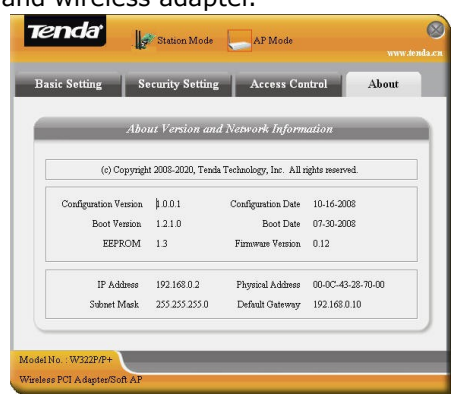
Delete: to delete one existing MAC address in the list.

Remove All: to delete all clients' MAC address in the list.

Apply: to make the changes made take effect.

3.2.5 About

This window displays something about software version and wireless adapter.



Appendix One: Acronyms and Terms

WLAN Wireless Local Area Network

802.11 A family of specifications developed by the IEEE for WLAN technology.

802.11a An extension to 802.11 WLAN standard that provides up to 54 Mbps transmission in the 5 GHz UNI radio band.

802.11b An extension to 802.11 WLAN standard that provides up to 11 Mbps transmission in the 2.4 GHz ISM radio band. 802.11b uses DSSS modulation.

802.11g An extension to 802.11 WLAN standard that provides up to 54 Mbps transmission in the 2.4 GHz ISM radio band. 802.11b uses OFDM modulation and is backwards compatible with 802.11b.

Ad-Hoc A group of computers each with wireless adapters, connected as an independent WLAN.

AES Advanced Encryption Standard

BSSID	Basic Service Set ID
DHCP	Dynamic Host Configuration Protocol
DSSS	Direct Sequence Spread Spectrum. DSSS is one of two types of spread spectrum radio. The other is frequency-hopping spread spectrum (FHSS).
QoS	Quality of Service
OFDM	Orthogonal Frequency Division Multiplexing
RADIUS	Remote Authentication Dial In User Service
RTS	Request to Send
SSID	Service Set Identifier. A 32-character unique identifier attached to the header of packets sent over a WLAN that acts as a password when a mobile device tries to connect to the BSS.
TCP/IP	Transmission Control Protocol/Internet Protocol
TKIP	Temporal Key Integrity Protocol
WDS	Wireless Distribution System
WEP	Wired Equivalent Privacy. A security

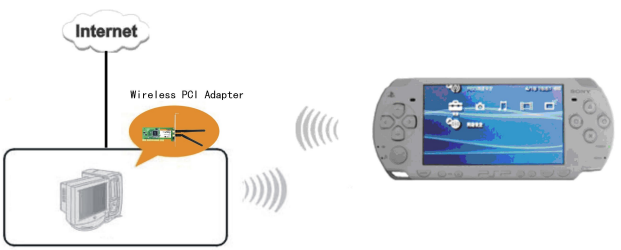
	protocol for WLANs defined in the IEEE 802.11 standard.
WPA	Wi-Fi Protected Access
WPA2	Wi-Fi Protected Access 2. The next generation of Wi-Fi security, based on the 802.11i standard.
WPA2-PSK	Wi-Fi Protected Access 2-Pre-shared Keys
WPA-PSK	Wi-Fi Protected Access-Pre-shared Keys

Appendix Two: Product Specification

Standard	IEEE802.11g, IEEE802.11b, IEEE802.11n
Port	32-bit PCI 2.2 interface
Frequency Range	2.4～2.4835GHz
Transmission Rate	Provides 300Mbps receiving rate and 300Mbps sending rate
Antenna Gain	2T2R 2.2dBi antennax 2
Transmission Power	Max. 19dbm
Modulation Method	OFDM, CCK
Working Temper.	0℃～40℃
Storage Temper.	-40℃～70℃
Working Humidity	10%～90%RH non-condensing

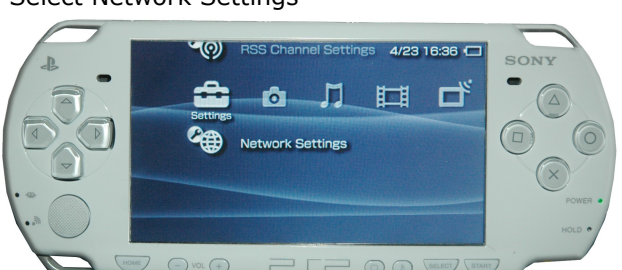
Appendix Three: How to connect with PSP

1. Topology of PSP connecting with W322P/P+



2. To configure PSP with Ad-Hoc mode

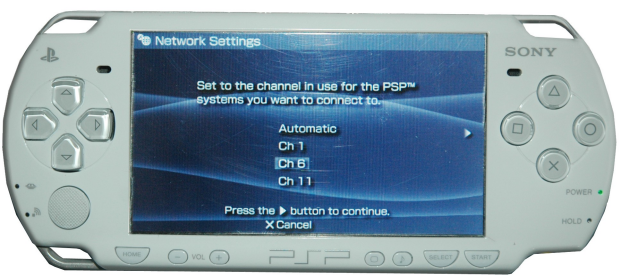
Select Network Settings



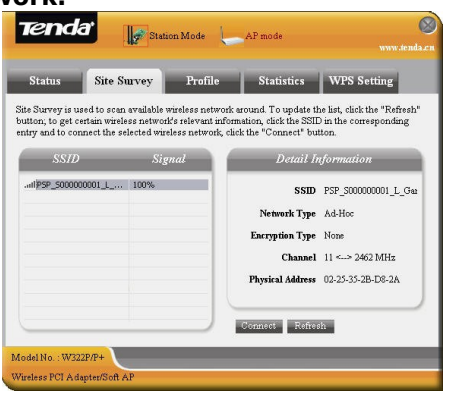
Select Ad-Hoc mode

Network Settings
Ad Hoc Mode
Infrastructure Mode
Settings for direct communication between PSP™ systems without using an access point.
✕ Back ○ Enter
SONY

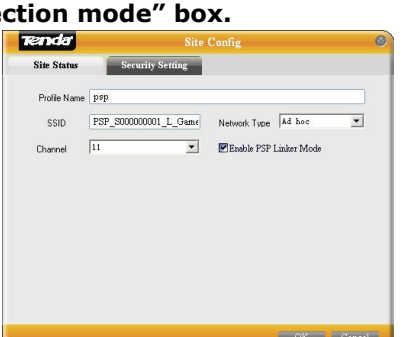
Select Channel



3. **In W322P/P+ Utility Interface scan PSP and double-click to connect the wireless network.**

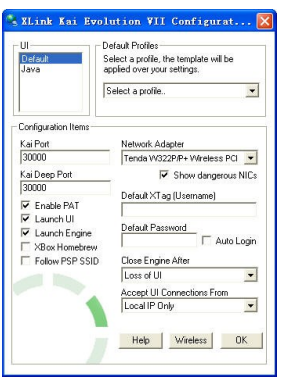


4. **In Site Survey check "enable PSP connection mode" box.**



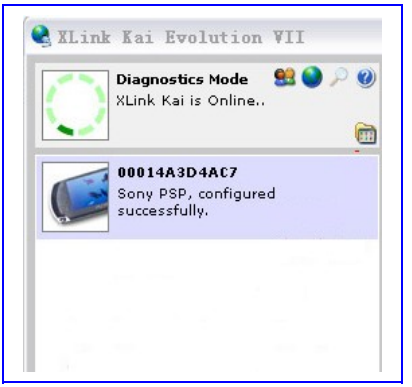
5. **To configure Xlink Kai**

Select “Start”→ “All programmers” → “Xlink Kai Evolution VII” → “Start Kai Config” to configure the user name, password and other parameters as follows.



6. Login Xlink Kai

Select “Start”→ “All programmers” → “Xlink Kai Evolution VII” → “Start Kai”. PSP will connect with Xlink Kai automatically. The following window will indicate the connection is established well now.



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